

EXCAVATIONS AT SARANDA KOLONES, PAPHOS, CYPRUS, 1981–1983

JOHN ROSSER

The enigmatic mound of Saranda Kolones (“The Forty Columns”) was first investigated by A. H. S. Megaw in 1957–59 on behalf of the Cyprus Department of Antiquities. These excavations quickly established that the granite columns littering the site belonged not to a temple, as many believed, but to a compact castle of concentric plan, unlike any known fortification in Cyprus. Subsequent excavations followed in 1966–67, sponsored by the British School at Athens, and in 1970–71 by the School in association with Dumbarton Oaks.¹ After a decade’s interruption, during which Mr. Megaw completed the excavation of Kourion basilica, work resumed in 1981 (fig. 4) with the same sponsors. This writer joined Mr. Megaw in that year as Associate Director, providing two more institu-

tional sponsors, Boston College and Earthwatch.² This report summarizes the chief results of the last three seasons of excavation that followed, in 1981, 1982, and 1983.³

The architecture of the castle is described in detail elsewhere,⁴ but it is useful to mention the essential features here (fig. A). Around a central courtyard was a first storey comprised of undercrofts where stables, a mill, a steam bath with its stoking chamber, and a forge were located. It is this first storey that had survived for excavation, despite some disturbance by stone robbers. The undercrofts were originally vaulted and evidently supported a *piano nobile* reached by two staircases in the courtyard. Four imposing towers of quadrangular shape stood at the corners of the castle. Midway along the east side was an apsidal tower that contained a bent entrance. Reused granite columns, cut in half, were laid horizontally within the tower walls for reinforcement. Around the castle was an outer wall with eight towers, one at each of the four corners and at the midpoints of three sides. However, on the east side, where the wall bends outward to provide for passage around the apsidal tower, there stood an imposing outer gate tower, reinforced by granite columns. At the level of the surrounding ditch were sallyports. A postern gate was situated in the flank of the pentagonal tower at the midpoint of the west outer wall. Most of these features were well understood when work resumed in 1981.

¹ For a report on the 1970–1971 campaigns, see A. H. S. Megaw, “Supplementary Excavations on a Castle Site at Paphos, Cyprus, 1970–1971,” *DOP*, 26 (1972), 322–43, where previous reports are also cited. See also Mr. Megaw’s “Excavations at ‘Saranda Kolones,’ Paphos,” *RDAC* (1971), 117–46.

In the 1981–83 campaigns, Mr. Megaw and the writer were assisted by the following trench supervisors from the British School at Athens: Pamela Armstrong (1981), Archie Dunn (1981), Peter Donovan (1982), Christine Morris (1983), Susan Mossman (1982), Guy Sanders (1983), and Christopher Simon (1983). Other trench supervisors have included: Stewart Bell (1981–83), Catia Galatariotou (1981; University of Birmingham), Anne Georgiades (1983), Maureen McCarthy (1981; Boston College), Lucy MacLauren (1981), Shelaugh Meade (1982–83), Scott Wegryn (1981–82; Boston College), William Wisheart (1981–82; Boston College), and Susan Young (1983; the Canadian School at Athens). Also assisting were Richard Anderson (1983; surveyor), Evelyn Bell (1982–83; museum inventory), Eugene Bushala (1981–83; Boston College), Antoni Orphanou (1981–83; foreman), Arrye Rosser (1981–83; provisional inventory), Claire Rosser (1981–83; purchasing), and David Smyth (1981–82; surveyor, the British School at Athens). The list would be overly long were all of the Boston College student volunteers and those volunteers from EARTHWATCH listed. Nonetheless, their presence was invaluable and their help much appreciated.

² EARTHWATCH and The Center for Field Research (Belmont, Mass.) were sponsors of the 1982–83 campaigns. Boston College sponsorship began in 1981.

³ For a report on the 1981 season, see A. H. S. Megaw, “Saranda Kolones 1981,” *RDAC* (1982), 210–16, from which Mr. Megaw’s figs. B and D are reproduced. The present report reflects the views of both the writer and Mr. Megaw.

⁴ Megaw, “Supplementary Excavations,” 323–28.

BASIC PROBLEMS AND OBJECTIVES

That the castle was the one known to have been destroyed by the earthquake of 1222 was clear at the beginning of the 1981 campaign. It was also clear that the last castle occupants were Crusaders. Less clear, however, was the date of the castle's construction, although the latest material from construction contexts pointed to the ninth century as a terminus post quem.⁵ Moreover, the surviving architecture showed additions and alterations, suggesting that the final occupants of the castle may not have been responsible for its basic design.⁶ In addition, a literary source⁷ mentions that a *castellum Baffes* surrendered to the forces of Richard the Lionheart in 1191, when Richard conquered the island. Was not, then, Saranda Kolones the castle that surrendered to the Crusaders, who occupied the castle until its destruction in 1222? In 1981 this hypothesis seemed possible.

Saranda Kolones, whether Byzantine or Crusader, is one of the earliest examples of the medieval concentric castle. In place of a great keep there is a courtyard, around which is placed a ringed defense of two curtain walls and a ditch. It has been suggested that the conception of this design came from the Crusader Levant, since the earliest Crusader examples of this kind of castle, including the famous Krac des Chevaliers, predate anything similar in western Europe.⁸

The earliest known example of the Crusader concentric castle is Belvoir.⁹ The castle, cleared by Israeli archaeologists in the late 1960s, overlooks the Jordan River just south of Lake Tiberias, above a major invasion route into the Latin kingdom. The

importance of Belvoir, which is dated to 1168–87, has been noted by R. C. Smail:

Israeli archaeologists have established a new landmark in the history of the European castle: a strong-place, fairly securely dated, in which there is no great tower; in which all the defences, carefully designed to provide both for defence and counter attack, were concentrated on a symetrically-disposed, double-line of curtain wall. All these features would one day become common in the strongholds of western Europe, but not until the following century. Belvoir was therefore ahead of western practice, but it was also ahead of what the crusaders had built thus far in Syria.¹⁰

If Saranda Kolones was the Byzantine castle in Paphos that was handed over to the Crusaders in 1191, its construction would then predate Belvoir. The long-standing controversy concerning Byzantine influence on Crusader castles depends primarily on the comparison of well-dated examples. If Saranda Kolones is considered Byzantine, the argument might seem to tilt in favor of those who believe that the Byzantines created the concentric castle.¹¹

However, the Byzantine attribution was maintained only as a working hypothesis. One difficulty was that no substantial traces of a twelfth-century Byzantine occupation had been found in the castle.¹² Thus, it seemed important in the 1981–83 campaigns to reinvestigate, by stratigraphic soundings,

¹⁰R. C. Smail, *The Crusaders in Syria and the Holy Land* (New York–Washington, 1973), 102.

¹¹Certain features are similar in both Belvoir and Saranda Kolones. Most similar are the plans, each one consisting of an inner courtyard surrounded by undercrofts, with towers at the corners of the castle and a gate tower midway along one of the sides. Each also has an outer wall with eight towers, interspersed with sallyports, and an imposing outer gate tower (enlarged into a barbican at Belvoir) midway along the curved east outer wall. The third line of defense for both castles is an encircling ditch, completing the concentric plan.

However, there are dissimilarities. Belvoir is considerably larger than Saranda Kolones. It is built of a dark, basaltic stone. Its towers are all quadrangular in shape. Its castle gate tower is more sensibly located along the west wall, not immediately adjacent to the outer gate tower, as is the case at Saranda Kolones. At Belvoir the outer wall is battered, the sallyports are vaulted, and the embrasures lack the rectangular recess of those at Saranda Kolones. Finally, the entrance to the outer gate tower is different.

Mr. Megaw and the writer were able to make these observations in early May of 1982. We stayed at the British School of Archaeology in Jerusalem, where we were assisted by the staff, especially Mr. Denys Pringle. The writer was supported in this trip by a grant from The American Philosophical Society.

¹²For a discussion of this, see Megaw, "Supplementary Excavations," 340–43. As late as 1982, the probable Byzantine origin of the castle was maintained by this writer: see "The Castle of the Forty Columns at Paphos, Cyprus," *Abstracts of Papers. Byzantine Studies Conference* (Chicago, 1982), 46–47.

However, a close examination of the pottery from stratigraphic soundings was made in the autumn of 1983 by this writer,

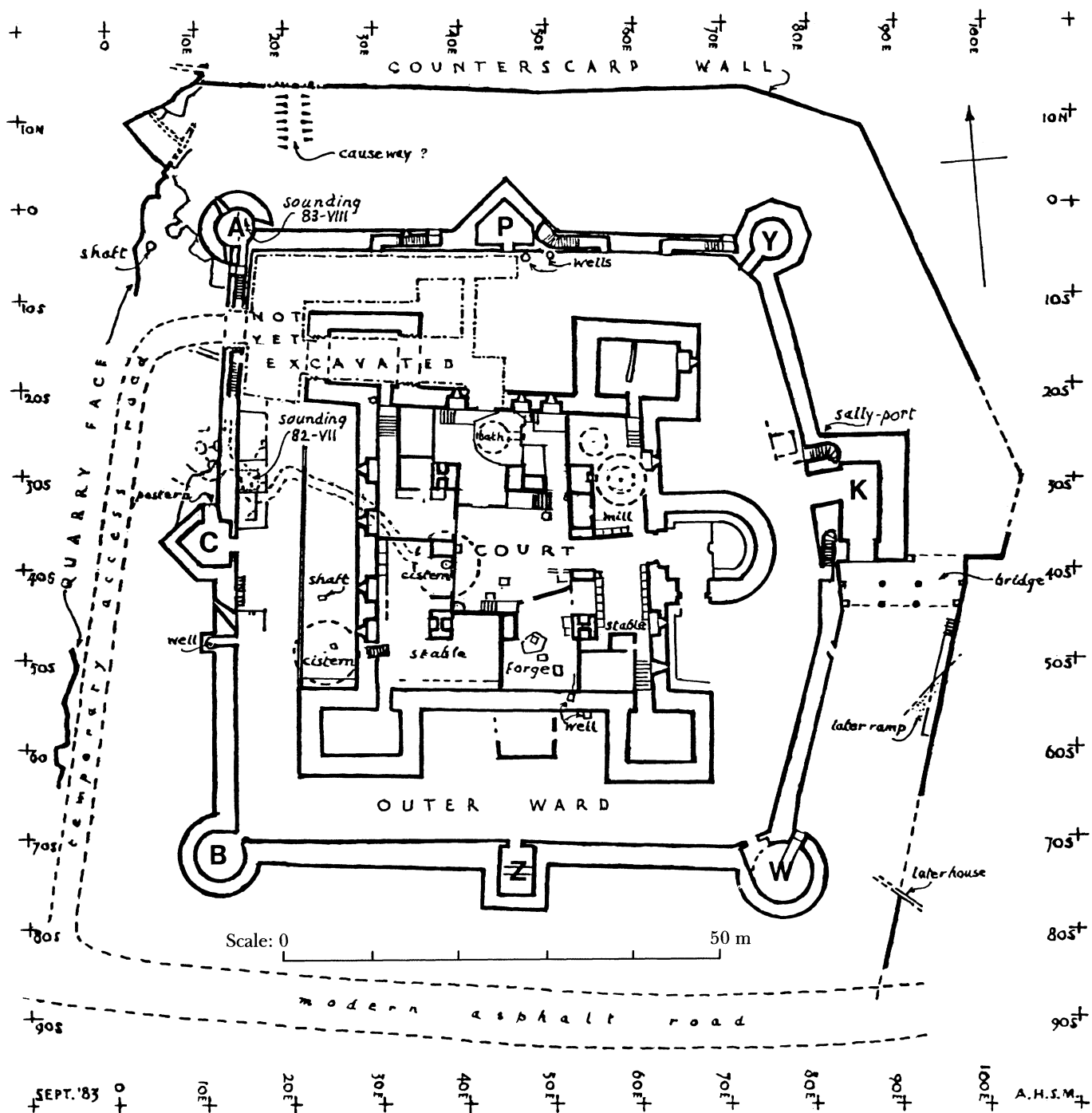
⁵*Ibid.*, 339–40.

⁶*Ibid.*, 340 ff.

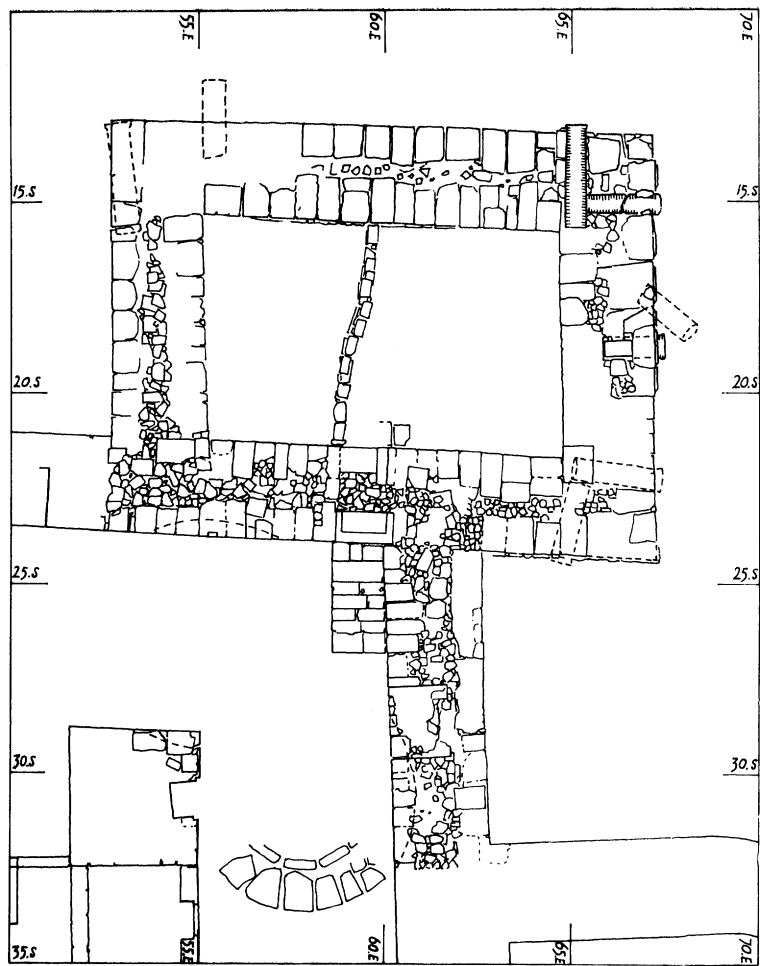
⁷Roger of Hoveden, *Chronica*, ed. W. Stubbs, Rolls Series, 51 (London, 1868–71), III, 111, as cited by Megaw, "Supplementary Excavations," 340 note 47. The literary and archeological evidence for the castle's destruction by earthquake in 1222 is also discussed, *ibid.*, 326–27.

⁸For example, Charles Oman, *A History of the Art of War in the Middle Ages*, II, 2nd ed. (1924; repr. New York, 1969), 29–30. The difficulty in attempting any serious discussion of Byzantine influence is emphasized by R. C. Smail, *Crusading Warfare* (1097–1193) (Cambridge, 1956), 232–44. The ultimate source may be the Roman *castrum*; *ibid.*, 230–36. Cf. Robert W. Edwards, "Ecclesiastical Architecture in the Fortifications of Armenian Cilicia," *DOP*, 36 (1982), 173.

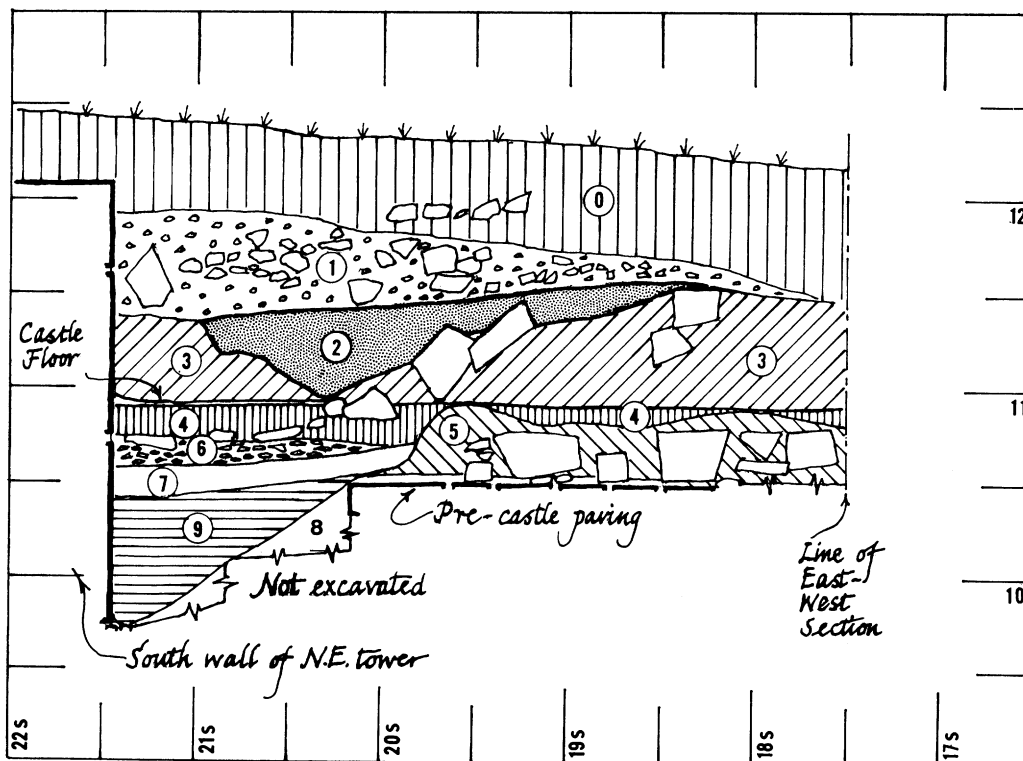
⁹Among the bibliography on Belvoir is M. Ben-Dov, "Belvoir (Koklav Hayarden, Kaukab el Hawa)," in M. Avi-Yonah, ed., *Encyclopedia of Archaeological Excavations in the Holy Land*, I (1975), 179–84; also by the same author is "Crusader Fortresses in Eretz-Israel," *Qadmoniot*, 8, 4 (1975), 102–13, where previous literature is cited. There is a general discussion in M. Benvenisti, *The Crusaders in the Holy Land* (Jerusalem, 1970), 294–300.



A. Cyprus, Paphos, Saranda Kolones, Plan of Castle at Close of 1983 Season



B. Plan of Northeast Tower in 1981 (scale 1:200)



D. North-South Section (South Part) through Northeast Tower (scale 1:40)

both the possibility of a twelfth-century Byzantine occupation and the archeological evidence for the castle's construction. A promising area for such soundings was the northeast tower of the castle proper, of which only one corner had been exposed. Its complete excavation was our first target. Other objectives included the completion of excavation within the inner ward, where two rooms remained filled with earthquake debris. It was hoped that here, as elsewhere in the castle, the debris might be undisturbed, providing sealed deposits of early thirteenth-century artifacts. Such deposits had previously proved valuable sources of closely dated material, a significant asset for medieval studies in the Levant. Finally, it was important to make headway with the excavation of the northern rampart of the outer ward and to establish the limits of the north and east sectors of the ditch, where the counterscarp had been located at only one point. In the east sector, beside what was presumed to be the outer gate tower, it was hoped that traces of a bridge would be found.

1. *The Northeast Tower*

Prior to 1981 the northeast part of the tower had been excavated, exposing two columns in position within the walls in which they were embedded (fig. 2, upper left). In 1966–67 one stratigraphic sounding had been made against the tower's north face into its foundation trench. The latest material found in the trench's backfill was then thought to be no later than the seventh century.¹³ Much more of the tower's foundation trench backfill was explored in 1981.

General clearance of earthquake debris, however, was the first order of business in that year. With this completed, the tower's basic dimensions were ascertained as 14.50 by 11.00 m, with walls 2.40 to 2.70 m thick, consisting of a rubble core between two faces of dressed limestone blocks (fig. B). The blocks are set in a good lime mortar and bossed on the exterior. Two courses are preserved above ground, and on the east wall a single block of a third course remains.

What is left of an embrasure is situated 1.50 m north of the east wall's midpoint. Here the mortar preserves an impression of two blocks, forming the outline of a loophole that opened from a rectan-

gular embrasure. Subsequent excavation revealed that the embrasure is higher than the earth floor of the tower by about 0.45 m.

The other walls of the tower were less informative. The north wall, at its east end, preserves a piece of column *in situ* within a second course of blocks. Near the northwest corner lay a column drum that probably belonged to the west wall. It is difficult to speculate about the position of embrasures in these two walls, although certainly each would have contained at least one.

The 1981 clearance also revealed several interesting features within the interior of the tower. It was entered by a flight of steps from the adjacent millroom (fig. 7), to the south. A slender partition wall, starting from the west jamb of the tower entrance and ending midway along the north wall, effectively divides the interior (figs. B and 3). Its sinuous line may be due to a desire to include the whole of an embrasure in the north wall within the western subdivision. If there were two such embrasures, the partition would presumably have butted between them. There must have been an opening in the partition, and this was probably at the south end where there is an appropriate gap suitable for a threshold. The Crusader date of this partition is clear, since the wall rests on an earth floor of Crusader origin.

Two ramps, cut into the fallen debris of the tower, were created by stone robbers for the removal of stone blocks. Both crossed over from the outer ward into the interior of the tower over places in the walls already robbed down to a single course of stone. The ramp that entered through the robbed-out north face of the tower was particularly well defined (fig. 5); it rose about a meter from north to south across the room (fig. D, layer 2), indicating that at this point the stone robbers were working well above the last tower floor. However, it was otherwise at the southeast corner, where another ramp invaded at a lower elevation, causing considerable damage to the floor. Above the surfaces of the ramps local thirteenth-century pottery was found, indicating how quickly after 1222 the ruined castle became a source of stone for the rebuilding of Paphos.

Outside the east wall of the tower the stone robbers missed something of value: a beautiful glass flask that somehow survived the earthquake almost intact (fig. 11).¹⁴ Nearby was also found the greater

with the aid of a grant from Boston College and the Mellon Foundation. By this time, sufficient evidence had accumulated to make the former opinion no longer tenable, as explained below.

¹³ Megaw, "Supplementary Excavations," 327.

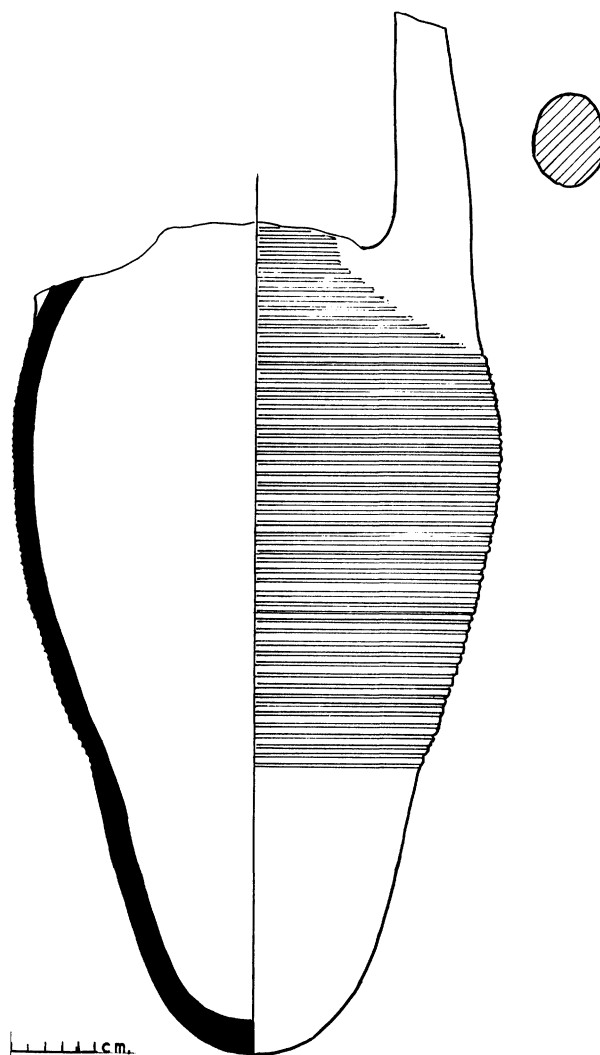
¹⁴ Inv. no. FC. 3162G. The height is 0.024 m, the diameter of the mouth 0.062 and of the base 0.08.

part of a Crusader amphora with high-slung handles (fig. C).¹⁵

In 1981–82 nineteen stratigraphic soundings were made within and outside the tower, including trenches that created north-south and east-west sections across the tower. On the exterior, where thirteen soundings were made, an earlier alignment of the east wall was discovered outside it, consisting of a single course of blocks oriented slightly more to the northwest of the line finally adopted.

Figure D illustrates the stratigraphy inside the tower. Below the upper two layers of topsoil was the robber's ramp (layer 2) that ran north-south across the tower. Layer 3 represents destruction debris above the tower floor, which is layer 4. A foundation trench for the tower's south wall cut through ninth-century occupation remains (layers 5 and 8), including a paved floor. The foundation trench had successive backfills as represented by layers 6, 7, and 9. The backfills produced nothing later than ninth-century pottery, although the floor over the back-filled trench is Crusader in origin. More telling indications for the Crusader origin of the tower were found in back-filled foundation trenches on the exterior of the tower.

In four stratigraphic soundings against the exterior of the tower, a small number of mid- to late-twelfth century sherds were found in construction contexts well below the levels of the outer ward. In a sounding (1981–XV) against the north face of the tower, at the bottom of the foundation trench backfill, half a meter below the floor, was found a small sherd from the everted rim of a bowl which can hardly be earlier than the late twelfth century.¹⁶ From the construction fill encountered in sounding 1981–X, also against the tower's north face, came a fragment which recalls the late twelfth-century Byzantine gouge-decorated ware from the Aegean.¹⁷ In similar backfill in sounding 1981–IV, situated midway along the tower's east face, was found a sherd with a distinctive apple-green glaze that could also be of late twelfth-century date.¹⁸ Fi-



C. Amphora (FC. 3086) from Outer Ward by Northeast Tower, Early Thirteenth Century

nally, another sounding (1982–VI) at the tower's southeast corner produced a small body sherd from foundation trench backfill associated with the first phase of the tower's construction. The sherd has fine sgraffito decoration (plumage?) of the Byzantine free-field type, and must be at least mid-twelfth century.¹⁹ This particular sherd is evidence that the

¹⁵Inv. no. FC. 3086. For a more complete example of this type, see Megaw, "Supplementary Excavations," fig. 27, FC. 2182/31.

¹⁶Inv. no. FC. 3242/1, which closely resembles in decoration and profile FC. 1555/1, published by Mr. Megaw in "Supplementary Excavations," fig. F, no. 5. He believes the former to be of a different, probably earlier fabric than the latter, and would thus date FC. 3242/1 to the end of the twelfth century.

¹⁷Inv. no. FC. 3180/1, from an everted rim with yellow glaze over a slip, through which there is a bit of gouging.

¹⁸Inv. no. FC. 3294/1. In the interior of the tower the packing for its earth floor included a jug fragment with green glaze

(FC. 3329/1), associated with an imported Byzantine brown-painted rim sherd of twelfth-century type (FC. 3329/3).

¹⁹Inv. no. FC. 3514/1. Also attributable to the twelfth century is a White Ware sherd of gritty fabric, Inv. no. FC. 3282/1, from a sounding (1981–XIX) in construction fill at the northeast corner of the tower. It has a sgraffito border overpainted with radial stripes of black; the glaze is lost. The sherd's flaring rim comes to a point, like rims of many twelfth-century Byzantine bowls, but the fabric is closer to Seljuk wares.

initial building phase can not have been far removed in time from the final construction of the tower.

These are a handful of sherds, but they come unquestionably from construction contexts well below castle levels in the outer ward. Subsequently, this evidence of a late twelfth-century construction date was confirmed by soundings at other locations, notably in the masonry substructure of Tower A, the northwest tower of the outer wall, as reported below. The sum total of Byzantine twelfth-century sherds, even including those from unstratified overlying earthquake debris, is not sufficient to prove that the Byzantine *castellum* stood on the Saranda Kolones site.²⁰

The possibility exists, certainly, that within the castle's interior twelfth-century occupation layers may have been destroyed, since here the castle builders cleared everywhere down to bedrock before building. Only within the four corner towers, where the chosen floor levels were 1.60 m above those of the castle interior, was there any hope that any previous twelfth-century remains might have survived. Unfortunately, in the case of the northeast tower, if there was an earlier twelfth-century stratum, it was removed, since below the Crusader floor the latest pottery was ninth century in date. The same is true in the outer ward, where it appears that the ninth-century layer also was removed. To the east and southeast of the tower eighth- and ninth-century pottery appeared below the Crusader surface: a chafing dish rim, FC. 3414/2 (fig. H, 17), and rim and shoulder fragments of a vessel with combed decoration, FC. 3429/1 (fig. H, 9). But these were mixed with later wares and were matched by contemporary sherds found as survivals in later contexts from other parts of the site (fig. H, 13–16, 18, and 19).²¹

That there were Byzantine occupation remains of twelfth-century date on the site, at least until the

building of the castle obliterated them, cannot be doubted thanks to the finds from construction contexts and to the rather numerous imported twelfth-century sherds found scattered in the earthquake debris. False hopes were raised in sounding 1982–I, just east of the northeast tower in the outer ward, where in three successive lime crusts three joining rim fragments of a dish of the Byzantine Brown and Green Painted Ware, FC. 3414/1 (fig. H, 10), were found. However, as it turned out, not only was this a mixed context that included the Dark Age material mentioned above, but the lime crusts (just 0.20 m below the outer ward surface) are not floors but almost certainly relics of mortar-mixing by the castle builders. The fact is that we have yet to find any undisturbed Byzantine occupation layer of any date subsequent to the ninth century, let alone one that could be associated with the *castellum* surrendered in 1191.

2. The Millroom

The south entrance had been cleared in a previous campaign. There, the edge of a circle of paving stones (fig. B) suggested a donkey-mill. Just inside the entrance was found a row of mangers and to the west a small storeroom. Both appeared to be adjuncts of the mill.

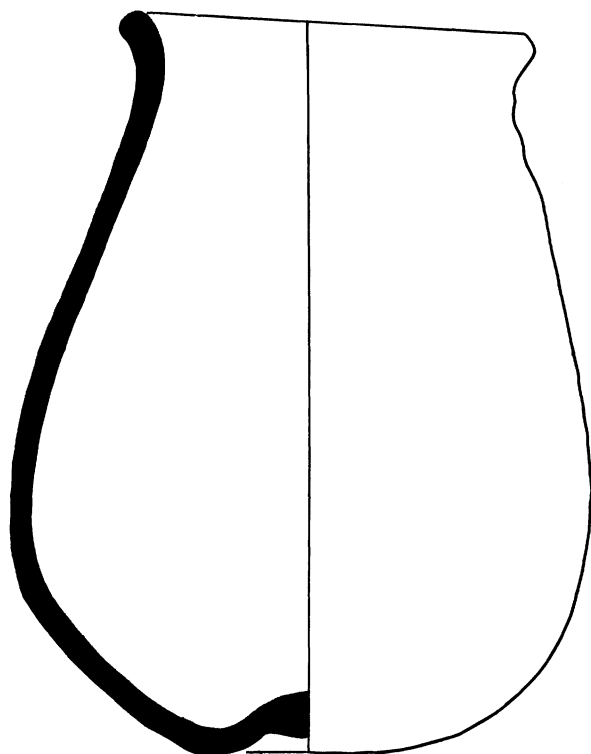
Most of the 1981 season was needed just to clear out the earthquake debris from this room in the north section of the east undercroft. A bulldozer was brought to a point immediately above the room (fig. 6), and the smaller claw at the rear of the machine lifted out the huge fallen blocks after each "layer" had been planned and photographed. By the end of the season a flight of stone steps could be seen leading up to the northeast tower (fig. 7). On the floor at the bottom of the steps rested a mortar and pestle, a small grindstone, and two coarseware pots (figs. 12 and 13).²² One of them (figs. 13 and E) was of a type used in the manufacture of sugar.²³ The presence of this pot, in addi-

²⁰ Megaw, "Supplementary Excavations," 340, did not exclude the possibility that the site was vacant when the existing castle was built.

²¹ I am indebted to John Hayes for the identification of these sherds. It was also Mr. Hayes who drew the profile in fig. H. Those Dark Age sherds in fig. H not identified elsewhere include: fig. H, 13 (FC. 3799/1), the rim fragment of a glazed White Ware I dish (eighth, possibly ninth century); fig. H, 14 (FC. 3696/1), the base sherd of a small bowl or jar (seventh century?); fig. H, 15 (FC. 3734/12), a rim sherd from a small footed (?) glazed White Ware II (early) bowl (ninth century?); fig. H, 16 (FC. 3745/2), the rim of a glazed White Ware II juglet (early, eighth or ninth century?); fig. H, 18 (FC. 3907/2), a rim sherd from a greenish brown glazed chafing dish (eighth or ninth century?), and, finally, fig. H, 19 (FC. 3734/13), a foot fragment from a brown glazed chafing dish (eighth or ninth century?).

²² Inv. nos. FC. 3323 (pestle), FC. 3324 (mortar), FC. 3319 (grindstone); the two pots are FC. 3322 and FC. 3318 (the molasses pot).

²³ It is of a type used in the refining process for the collection of molasses, received from an inserted conical pot pierced at the bottom. Examples of both have been found in previous campaigns, e.g., similar to FC. 3318 is FC. 251/1, and for the larger, conical pot there is FC. 840/1. The process is described in Noel Deerr, *The History of Sugar*, I (London, 1949), 90–91, who quotes Al Nuwairi (1380–1432). Somewhat different in shape are the collecting pots from nearby Kouklia, where a fifteenth-sixteenth-century sugar factory was located. See F. G. Maier, "Excavations at Kouklia (Palaepaphos). Season 1976," *RDAC* (1977), 133, fig. 2 and pl. xxx, 4 and 5. Also by the same author, "Seasons 1977



E. Collecting Pot for Molasses (FC. 3318) from Millroom, Early Thirteenth Century

tion to other indications, suggests that in the millroom the crushing of sugar cane took place.

The mill near the south entrance was not excavated until 1982, but much had been learned the previous year when the earthquake debris, some four meters deep, was removed. For one thing, in the east face of the huge pier at the junction of the east and north undercrofts, a well shaft was discovered. Its mouth was blocked by earthquake debris, but its shaft was clear below, and apparently this had continued upward through the pier into the upper storey. Slightly out of alignment with the pier, the shaft probably preceded the pier as a feature which the castle builders found and employed, despite its different orientation. The presence of the shaft explains why this pier alone of the three corner piers has no latrines. On the pier's north and east sides, and on the opposite walls, the masonry was seen to have been cut into in order to allow sufficient space for the animals that drove not only

and 1978," *RDAC* (1979), 174 ff. See also M. L. von Wartburg, "Die königlichen Zuckerrohrplantagen von Covocle und die Zuckerindustrie in Cypern," *Zuckerind.*, 107 (1982), No. 12, 1141–1144.

the south mill, but another one in the west bay of the millroom. This second mill was excavated in 1983.

The mill near the south entrance, however, was excavated in 1982 (fig. 8). Within the ring of paving stones (4.80 m in diameter) on the south side is a concentric parapet of stone, which has as its center an inverted column base, set into the rubble layer that underlies the floor. At its center is a pivot hole, presumably cut to receive a vertical axle. The pivot hole is cut into the floor of a shallow channel that runs to the north side of the base. At the same level are bedded two large stones, interrupting the parapet of the mill ring on the north side. These are socketed, seemingly to receive a massive transverse wooden beam.²⁴ Two pairs of small pillars are set opposite each other, on either side of the large socketed stones, and these pillars are cut at the top with channels to receive smaller beams in the same east-west direction, though higher. These features, which interrupt the circular parapet, give the enclosure an oval outline²⁵ and straddle its only entrance, doubtless at the point where the output of the mill was collected. They probably had some role in the support of the superstructure of the mill, of which nothing has survived. Not only was the superstructure missing, but its millstones also. Fragments of a basalt millstone,²⁶ presumably the stationary bed-stone, since near its circumference there was an aperture through which any liquid product from the mill would have drained, were found stacked against the east wall of the room below the embrasure. Another, more complete millstone²⁷ (shown reassembled in the south mill in figure 8) was found against the west wall of the west bay of the millroom. In view of the hopper feature at its center, it would have been an upper millstone, possibly used in a different milling process. The missing mill superstructure and the removed millstones indicate that following the earthquake, but before the final collapse of the undercroft vaulting, there had been an opportunity for salvage.

Elsewhere in the millroom were found the skel-

²⁴ Preliminary research as to the form of the machinery that operated the mill is in progress. A photo and discussion of the Crusader sugar mill at Tawahin a-Sukkar, situated near biblical Jericho, are found in M. Benvenisti, *op. cit.* (*supra*, note 9), 254–56.

²⁵ The interior is 3.25 m north-south by 2.90 east-west (maximum).

²⁶ Inv. no. FC. 3513/3, 1.10 m in diameter. The thickness varies from 0.06 m at the outer edge to 0.02 m near the center (which has not survived).

²⁷ Inv. no. FC. 3640, of virtually the same diameter, but thicker.

eton of a dog²⁸ and a large storage vessel of unusual form²⁹ (fig. 14). Everywhere among the debris of large blocks that filled this room were found mangonel balls (more than 1500 in all), most of them rounded chert nodules that occur naturally in limestone deposits and erode from the sides of dry river beds. They splinter easily when dropped, making them ideal anti-personnel weapons. Originally they would have been stored on the terrace roof of the castle.³⁰ From the bottom of the well shaft situated in the pier were fragments of a glazed plate with a Star of David motif (figs. 15 and F, 3) and three ivory gaming dice.³¹ On and above the floor of the room were found many iron nails and fragments of iron barrel hoops, some with bits of wood attached. Several iron arrowheads were also found, in addition to two incomplete glazed pottery "grenades," and vessels of types now known to have been current in 1222 (e.g., fig. F, 1).³²

The second mill (fig. 9, foreground; fig. 10, background) was a disappointment. It was hoped that it might be better preserved and throw light on the machinery and purpose of the first mill. Unfortunately it did neither, primarily because it was already derelict at the time of the earthquake. Only the east part remained, including its four pillars, cut at the top to receive horizontal beams, its two lower socket stones and its central support, again an ancient marble column base. The slabs for the surrounding donkey walk had mostly been removed, as had the entire parapet. Next to the derelict mill, just to its south against the massive pier, was found a hearth and all around it evidence of the food that was cooked there (fig. 9, showing the hearth to the right of the mill remains in the foreground). The abandoned mill became a place where refuse was dumped, e.g., some molasses pot fragments, an iron helmet,³³ nails and spikes (many with wood still adhering), a broken pottery "grenade" (fig. 19), and fragments of several Zeuxippus Ware dishes (e.g., fig. 17). Of particular interest is an overfired, cracked, and deformed bowl with simple slip-painted decoration (fig. 16). Assuming it to be a

"waster" from a local factory, it must be one of the earliest known examples of Cypriot medieval glazed pottery.

Two basalt millstones,³⁴ fragmented by fallen debris, had been placed over the south edge of the abandoned mill, each millstone supported by small rocks underneath. One of the millstones overlaid the hearth, which in 1222 may no longer have been in use. Under one of these millstones was a candle of sulphur.³⁵

3. *The Stoking Chamber*

The stoking chamber for a furnace at mid-point of the north undercroft (fig. 23, right) was excavated in 1983; it proved to be unexpectedly monumental. Previously excavated was the room's south entrance from the court and a small store-basement along the south wall just to the west as one enters. Farther west, the exterior wall of the furnace itself had been exposed and, beyond it, the staircase leading to the circular room above it at the mezzanine level, presumed to have been a steam bath. The stoking chamber was filled with the usual debris of fallen rubble and face-blocks, the removal of which revealed the room's secondary arrangements, better preserved than in any other part of the castle.

Entering the room, one passes over a threshold into a spacious, paved corridor about two meters wide. Only two parts of the undercrofts were found paved, this one and the room to the west that gave access to the presumed bath chamber. The east side of the stoking chamber is the face of the northeast pier, which is followed by a rubble partition that separates it from the millroom. Set into the partition is a deep marble basin. Its supply of water, which must have been carried to it by hand, passed through a small hole in the bottom into a drain below in the stone pavement. The room extends to the north wall of the castle, where two embrasures are located. Where the corridor turns west toward the furnace, it is bounded by two extensive masonry platforms, each about 0.60 m high, filling a considerable portion of the room. They were probably used for storing wood fuel for the furnace. The north platform is edged by three marble column bases, inverted to form part of its upper

²⁸ Inv. no. FC. 3587 B/2.

²⁹ Inv. no. FC. 3651.

³⁰ They are now stored in the small room just west of the millroom's south entrance (fig. 23, lower right).

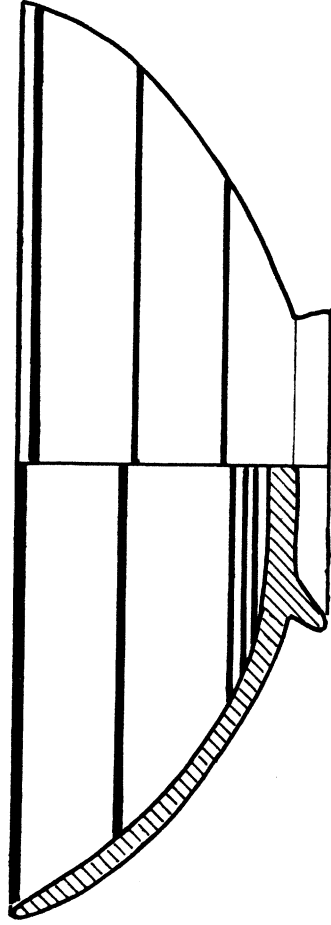
³¹ Inv. no. FC. 3644.

³² For the iron, Inv. nos. FC. 3363 F, FC. 3388 F/2 and F/4, FC. 3389 F/4 and F/7 (arrowheads). The "grenades" are FC. 3465 and FC. 3525. Among the pottery, particularly noteworthy is a Zeuxippus Ware bowl, FC. 3536 (fig. F, 1).

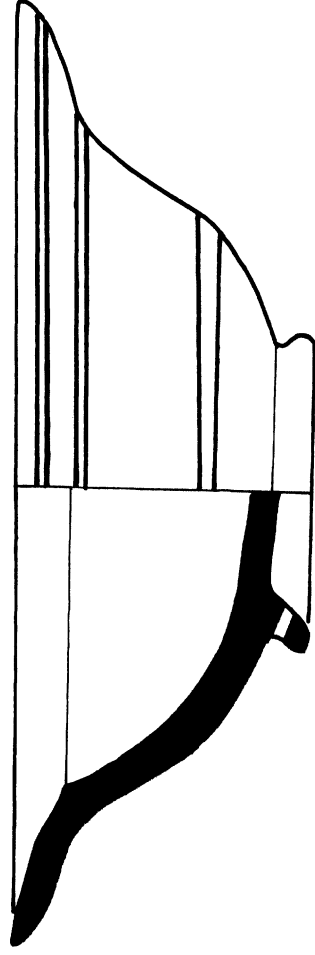
³³ The molasses pot fragments are Inv. nos. FC. 3828, 3879/1 and 3892/2; the helmet is 3827 F/1.

³⁴ Inv. no. FC. 3723 is 1.03 m in diameter. FC. 3727 is 1.00 m in diameter. The thicknesses are the same as those previously described. A hopper-collar, FC. 3725, found nearby, belongs to one of the millstones.

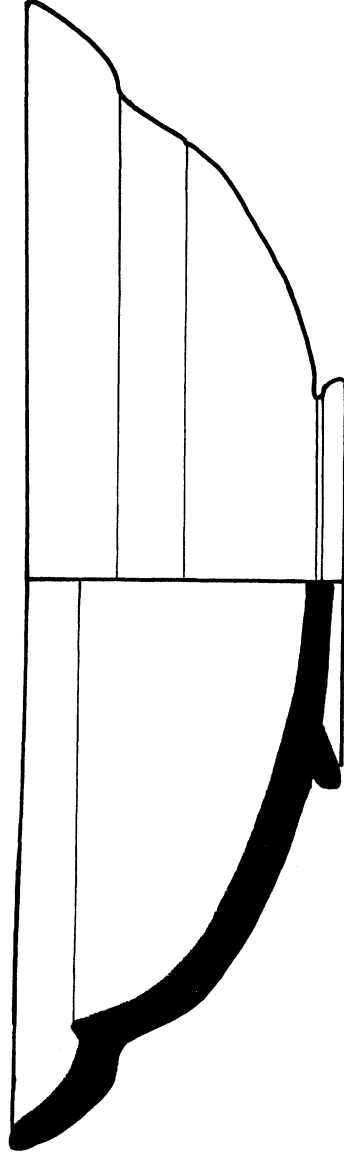
³⁵ Inv. no. FC. 3759/0.



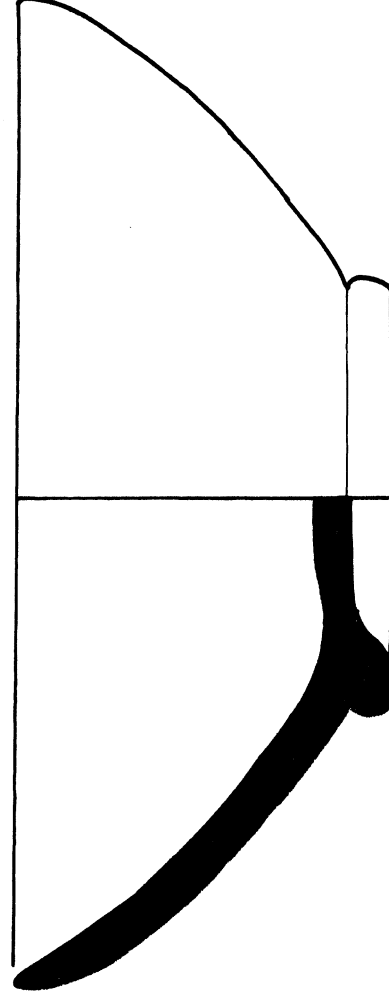
1. Zeuxippus Ware Bowl (FC. 3536) from Millroom



2. Zeuxippus Ware Bowl (FC. 3615) from North Outer Ward



3. Slip-painted Plate (FC. 3597) from Millroom



4. Zeuxippus Ware Bowl from North Outer Ward

F. Early Thirteenth-Century Glazed Pottery (all are $\frac{3}{4}$ actual size)

surface. From this platform a flight of three steps lead up to the western of the two embrasures.

Much of the west wall is occupied by the broad fireplace (fig. 24). Behind its massive lintel, between it and the wall of the furnace, the chimney rises above a shelf-like hearth, 0.93 m above the paving. The hearth is formed of a large marble block, below which is a small closet of no great depth. To the south, opening from the platform, is another closet. To the north, under the steps leading to the embrasure, is an alcove which contained a small hearth, at floor level, with its separate flue. It was covered by a thick layer of ash and charcoal, within which were the remains of a bird, a chicken, and a mouse, also a well-preserved piece of cloth.³⁶ A stone trough was set before this cooking alcove.

The furnace stokehole opened in the inner wall of the main chimney, but its iron door (fig. 25) was found on the paving before the hearth, complete but in delicate condition. After proper recording and emergency conservation,³⁷ it was raised and transported safely to the Cyprus Museum in Nicosia. About 0.80 m square, the door consists of overlapping plates of iron attached to a frame. Two large handles were attached to it, for it was a portable door without hinges. Other objects from the room came mostly from the corridor and north platform, and included a mason's chisel and various fragmentary iron artifacts.³⁸

The furnace itself (fig. G; also fig. 23, left) constructed of rubble with a little brick, is 3.60 m in diameter and 1.65 m high. The gravel floor contained no evidence of burning, which was surprising until careful examination revealed that it was a secondary floor, the first one having been of marble slabs. The new floor may have been installed just prior to the earthquake, which would account for the gravel's pristine condition and the few blocks of marble left lying about the interior of the furnace. Within the furnace, six flues carried heat from near the floor through its vault into the superstructure. In what little remains of the upper chamber no trace of a piped water supply has survived, and certainly for a steam bath water would have been necessary.

³⁶Inv. nos. FC. 3844B (for the bones) and FC. 3865 0/1 (cloth).

³⁷For this we are indebted to Mr. Andreas Georgiades of the Cyprus Museum Laboratory.

³⁸Inv. no. FC. 3816 F/3 (chisel). The numerous iron objects included an arrowhead (FC. 3735 F/3), five iron spike fragments, and parts of over a hundred iron nails.

4. The North Outer Ward

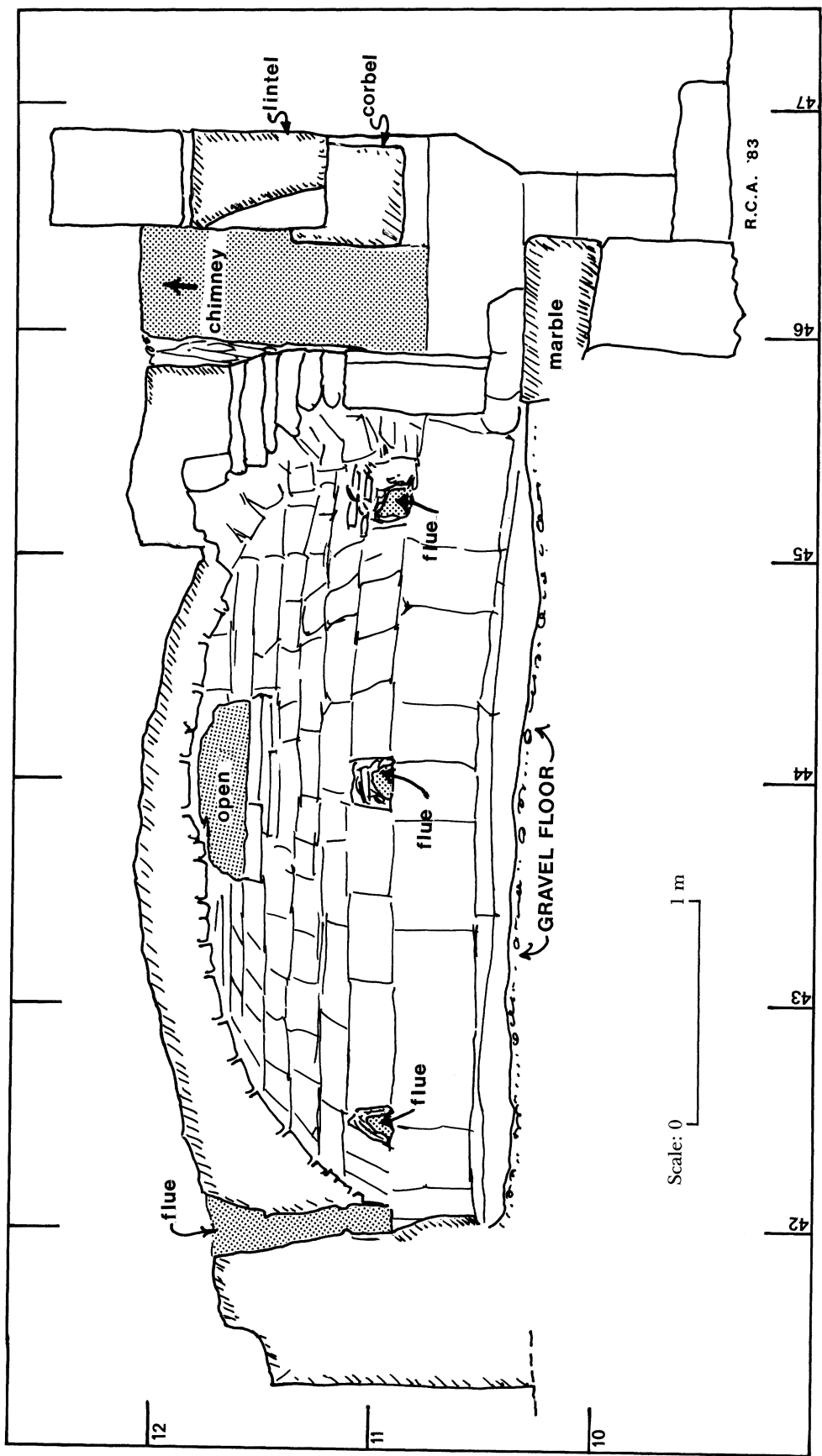
The east sector was excavated previous to 1981, down to the final floor. However, much of the remainder of this rampart between the castle proper and the outer wall was revealed in the next three campaigns. Excavation between the northeast and the northwest towers disclosed a much robbed-out intermediate wall, recalling the one in the west outer ward between the northwest and southwest towers. What survives of it does not reach either of the two towers, and the area which it enclosed was probably open to the sky, though much ash was found on the floor. No hearths, however, or other secondary arrangements were found to indicate a domestic purpose. Here among fallen blocks from the intermediate wall was recovered a slip-painted ovoid jug of Zeuxippus Ware, lacking only the neck. In any case, unless the wall was low, it would have blocked the field of fire from the embrasures in the north wall of the castle, as the other intermediate wall in the west outer ward would have done.

Outside this wall, at its west end, in a context that is at least Crusader in date, a lead seal of a Byzantine *stratēlatēs* named Abramios was found.³⁹ Nearby, in a context possibly to be associated with the initial salvage operation that followed the earthquake, was found a deposit of pottery and small objects. Apart from an intact Zeuxippus Ware dish (figs. 20 and F, 2) and a glazed bowl enlivened with green spirals (figs. 21 and F, 4), there were also three ivory gaming dice and various small objects of metal.⁴⁰

The north wall of the northwest tower was also exposed and found to be robbed down to its foundation. The tower's south wall, which had previously been excavated, is rather better preserved and there is some hope that undisturbed, pre-castle remains await excavation in the interior. Finally, just inside the outer north wall and three meters to the west of the well near Tower P, another well was discovered. Square-shaped and with good foot-holds,

³⁹Inv. no. FC. 3573. The obverse has a very fragmentary inscription, probably of the cruciform type which began to be used in the seventh century. The reverse reads: [— — —]P—[—] AMIOV—CTPATH—AATOV, in four lines (Abramios, *stratēlatēs*); 0.025 m is the diameter of the seal. See G. Zacos and A. Vegliery, *Byzantine Lead Seals*, I, Pt. 2 (Basel, 1972), 848, no. 1393, which appears to be exactly like ours and is dated to the seventh century.

⁴⁰Inv. no. FC. 3654 (game dice). The small metal objects are too numerous to list, but include iron spikes, nails, and hooks, a buckle (FC. 3645), and small cylinders, tubes, and a buckle of bronze.



G. East-West Section through Furnace on Line 25.60 m South

the well shaft passes through a small cave (about 2.00 by 6.00 m) just a few meters below the surface of the outer ward, through which one can easily communicate with the other well shaft. The fill excavated from the second well shaft was Crusader in date.

5. *The East Ditch*

Facing the east sector of the ditch, three towers and two sallyports had been revealed in the outer wall in earlier campaigns. The area around Tower W, at the southeast corner, had been cleared down to bedrock. Elsewhere, adjacent to Tower K, the outer gate tower midway along the east outer wall, bedrock had also been reached in a separate sounding. However, the greater part of the ditch in this sector still contained a considerable amount of disturbed debris, some of which could be cleared by mechanical means. In addition to general clearance, two other tasks remained: the location of the bridge across the ditch and the line of the counterscarp wall, which had been exposed at only one point. As far as the bridge was concerned, efforts were concentrated around Tower K, where soundings were made just south of the tower.

The location of these soundings was determined by three clues. The first was a block that abutted the southeast corner of Tower K and projected toward the stretch of counterscarp wall already exposed on the opposite side of the ditch. The fact that the ditch is exceptionally narrow at this point was another clue. Finally, the section of the curtain wall to the south of the gate tower is at right angles to the tower's south wall, unlike the rest of that curtain. A sounding at this point revealed mortar traces on the face of the curtain in two places where blocks had once abutted the wall. In another sounding along the line of the counterscarp wall, two pier responds projecting from its battered face were exposed (fig. 26). A little to the south, added masonry carried steps that led down the face of the counterscarp and gave access to the bottom of the ditch (fig. 27).

In 1983 the bridge's entire support system was exposed. At the north, it consisted of a single span from the projection at the southeast corner of Tower K to the opposite point on the counterscarp.⁴¹ To the south of this arch were two arcades, each consisting of three arches, which would have supported the wooden planking of the bridge. Each

arcade had responds at either end built against the castle and counterscarp walls, and two columns set on the rock floor of the ditch. The columns were made of reused drums. Enough voussoirs and extrados blocks were found, including an undisturbed section of the fallen span of the south arcade,⁴² to indicate that the arches were semicircular or segmental in profile. The bridge, then, crossed the ditch just south of the outer gate tower, in such a way as to force anyone entering the tower to make first a right angle turn. Once inside the tower, another such turn was necessary to gain access to the outer ward. This complied with standard practice for Crusader fortifications.⁴³

Under the bridge was a stable. The remains of six mangers (in two the tethering blocks were preserved) lined the south face of Tower K. A rough partition wall of reused column drums was constructed between the west supports of the south arcade (fig. 27, foreground). The partition wall turns north to line up with the block abutting the southeast corner of Tower K, thus completing the stable enclosure. It was probably here, in the east wall of the stable, now substantially robbed out, that the entrance was to be found. A plaster floor was provided within.⁴⁴

Much was done in 1983 to trace the full length of the east counterscarp wall. At both ends of the ditch, especially at the north, the wall was robbed out to a low level. Where it meets the north ditch counterscarp wall and also at the south end, where its continuation is concealed by the modern asphalt road, some reconstruction was necessary to keep the earth above the robbed-out wall from collapsing into the ditch. In the ditch at the south end, many curved and bossed face-blocks had fallen on the rock floor from the adjoining Tower W.

Other features appeared in 1983. Several meters south of the counterscarp steps a ramp (fig. A) appeared, running obliquely across what remained of the counterscarp wall and into the ditch. The finds associated with the ramp date its use to the thirteenth century. Further to the south a well-built but narrow house wall was found, running approximately parallel to the ramp across the heavily

⁴² Inv. no. FC. 3614.

⁴³ R. C. Smail, *The Crusaders in Syria and the Holy Land*, 107–8. The bent entrance was also a characteristic of Armenian fortifications. See Robert W. Edwards, *op. cit.* (*supra*, note 8), 173.

⁴⁴ Above the floor were found some fragments of prefabricated gypsum window or door frames (FC. 3840/1,2). On the floor was found a lead seal (FC. 3812/0). The obverse has a cruciform monogram identifying the sender as "Julian," a "bishop" according to the inscription on the reverse.

⁴¹ At this point the counterscarp wall is vertical, not battered, indicating that the northern arch sprang directly from it.

robbed-out counterscarp. Associated with this house wall was also thirteenth-century pottery that post-dated the earthquake. Outside the north ditch, there is evidence that at the same time squatters were inhabiting a commodious cave and throwing their refuse into the ditch. After the rebuilding of the town center, which lay to the east, it seems that medieval Paphos quickly expanded into the area surrounding the abandoned castle.

6. *The North Ditch*

Manual excavation has been completed along the whole length of the outer north wall, where undisturbed earthquake debris was found. At one point, along the east sector of this wall, three courses of large face-blocks were found lying side by side, neatly parallel to the wall where they had been thrown in one piece by the earthquake (fig. 2, bottom).

A traverse trench, which provided a section across the ditch (on the 57.40 m east line), reached the ditch's irregular rock floor over part of its length, and elsewhere the level on which the earthquake tumble fell in 1222 was exposed (fig. 28). The trench also exposed a section of the counterscarp wall and revealed that, after the upper part of the wall had been robbed, erosion of the area outside it had filled the outer part of the ditch with sterile material. Much of this was later removed mechanically, exposing the top of the surviving masonry of the counterscarp, 15.80 m from the castle wall. As just mentioned, everywhere the rock floor of the ditch is very irregular, doubtless as a result of quarrying. Medieval fragments from pits and fissures in the rock surface attest that these were at least partially filled after the building of the counterscarp wall. Above the 1222 level was found a quantity of local pottery of the later thirteenth century. It was evidently thrown there with other rubbish while the ditch was still open and the counterscarp still standing to a good height (fig. 22).⁴⁵

What remains of the counterscarp wall is very well preserved, except at the east end where it joins that of the east ditch. As presently seen, the wall consists of large blocks with reused columns and column bases occasionally inserted in a somewhat decorative manner. The wall, like that of the east ditch, is slightly battered. One curiosity is a crudely filled gap, about 3.25 m in length, in the original,

well-built masonry at the west end. Perpendicular to this, and jutting out into the ditch toward the outer curtain immediately east of Tower A, is an embankment of mortared rubble. This appears to have been a causeway across the ditch, reached through the gap in the counterscarp; it would have provided the builders with access to the interior while the castle was being constructed. Subsequently they removed it, where it approached the outer wall, and closed the gap in the counterscarp.

At its west end the north counterscarp meets an irregular rock scarp forming the outer limit of the west ditch, which, except in the neighborhood of Tower A, remains to be investigated. The irregularities in the line of the scarp, matched by varying levels in the ditch floor around Tower A, arose from the quarrying at this point in ancient times, from the straightening of part of the rock face by the builders of the castle, and from their cutting down of the quarry floor to the west of the tower. When the deep overlay in this part of the ditch had been removed mechanically, it was decided to excavate the whole of the area manually, extending as far as the embankment carrying the temporary access road into the castle and including the earthquake tumble around Tower A (fig. A, bottom).

Immediately south of the junction of the rock scarp with the north counterscarp wall, a large rectilinear recess was exposed in the ancient quarry face. Niches cut in the walls of the recess (fig. 30, left and right) and the remains of masonry partitions indicate that, at least at the south end, where beam holes are cut in the rock, this recess was enclosed and roofed. In the hard-packed floor of the enclosed part, two pots had been buried. They are dated to the first century A.D.,⁴⁶ by which time the quarrying at this point must have ceased. Above the floor was found a fragment of Cypriot Sigillata, dated to the early or mid-second century A.D.⁴⁷ Between the two dates the room's occupation oc-

⁴⁵ The fragments shown in fig. 22 are selected examples from the ditch and other contexts: FC. 3586 (upper left), FC. 3744, and FC. 3751 (upper and lower right).

⁴⁶ Inv. nos. FC. 3891 and FC. 3942. The second is the latest of the two and dates from 50–100 A.D. There is some indication of activity in this location around the first century B.C. FC. 3898/1 (fig. H, 1) and 3898/2 (fig. H, 3) are both incomplete Cypriot dishes that are dated by Mr. Hayes to ca. 150–100 B.C. The date is confirmed by FC. 3875, the greater part of an amphora of Koan form, with double handles (as Virginia Grace, *Amphoras and the Ancient Wine Trade* [Princeton, 1961], fig. 56, left) found at a lower level than the floor of the room, beside the wall running north from its east corner. This can hardly be later than the first century B.C.

⁴⁷ Inv. nos. FC. 3834/1 (the rim) and FC. 3834/4 (the base), from a basin (fig. H, 8). See J. W. Hayes, *Rei Cretariae Romanae Fautorum Acta*, 17/18 (1977), fig. 5, 106 (form P42).

curred. Elsewhere in the recess the latest material was also early or mid-second century.

South of the recess the ancient quarry face continues obliquely across the ditch in an erratic line to the south flank of Tower A. Northeast of this part of the quarry face, the floor of the quarry has not been reached; just clear of it Tower A was constructed. West and south of it the rock was cut down by the builders of the castle to a uniform level some eight meters above sea level, which is by far the highest point in the floor of the ditch so far exposed and five meters above the lowest point measured. In cutting down to this level, the upper part of a plastered Hellenistic well shaft (filled by Roman times) had been destroyed, along with the upper part of a cavity in the rock, which connects with the well shaft. The cavity was only partly excavated, but associated pottery indicates that its fill ranged from the second century B.C. to the first century A.D.⁴⁸ The castle builders cut the rock back to the west of these features to form the counterscarp, but the distance from Tower A was still only 5 m. Further deepening and widening of the ditch at this point must have been envisaged.

7. Tower A

Among the fallen blocks uncovered in the ditch around the north half of the tower, the usual range of castle period pottery was found, including the greater part of a Zeuxippus Ware bowl (FC. 3874/1). This would have fallen from the upper storey of the tower.

A crucial sounding (1983–VIII) was made below the floor of the surviving basement chamber of this tower. The patchy lime mortar surface was first removed; it contained sherds of castle period glazed wares. Immediately below it was exposed a hard-packed, mortared rubble that formed the solid platform on which the tower was built. This was broken up, in places to a depth of 0.80 m below the floor at the lowest point. Among the number of earlier sherds found in the interstices of the rubble were four glazed fragments, which have been identified by Mr. John Hayes as follows:

⁴⁸The earliest pottery in the cavity's fill includes FC. 3933/6 (fig. H, 2), a complete (mended) Cypriot dish dated to ca. 150–100 B.C.; and FC. 3933/15 (fig. H, 4), a Ptolemaic Egyptian dish, nearly complete, dated to ca. 100 B.C. The latest fill is dated to the mid-first century A.D. on the basis of the following: FC. 3905/1 (fig. H, 5), a fragmentary Cypriot Sigillata dish (form P4B; see J. W. Hayes, *Rei Cretariae*, fig. 3, 104), dated to the mid-first century A.D.; FC. 3905/2 (fig. H, 6), a Cypriot Sigillata A ware, Antioch shape 460; see F. O. Waagé, *Antioch-on-the-Orontes*, IV, 1 (Princeton, 1948), pl. v; and FC. 3905/3 (fig. H, 7), a Knidian (?) indented bowl or cup of "thin-walled ware."

FC. 3887/1. Sherd from Islamic plate with horizontal rim and turquoise glaze without slip, Seljuk (?) mid- to late twelfth century.

FC. 3900/1 (fig. H, 11). Byzantine rim fragment of Brown and Green Painted Ware dish of mid-(?) twelfth-century date.

FC. 3916/1 (fig. H, 12). A rim sherd from a small bowl with a thin white glaze over a finely ground white quartz-frit body (Seljuk or Persian), mid- to late twelfth century.

FC. 3916/2. Mid-twelfth century sherd from the floor of a large plate of Brown and Green Painted Ware.

FC. 3935/1. Sherd of ware similar to FC. 3916/1.

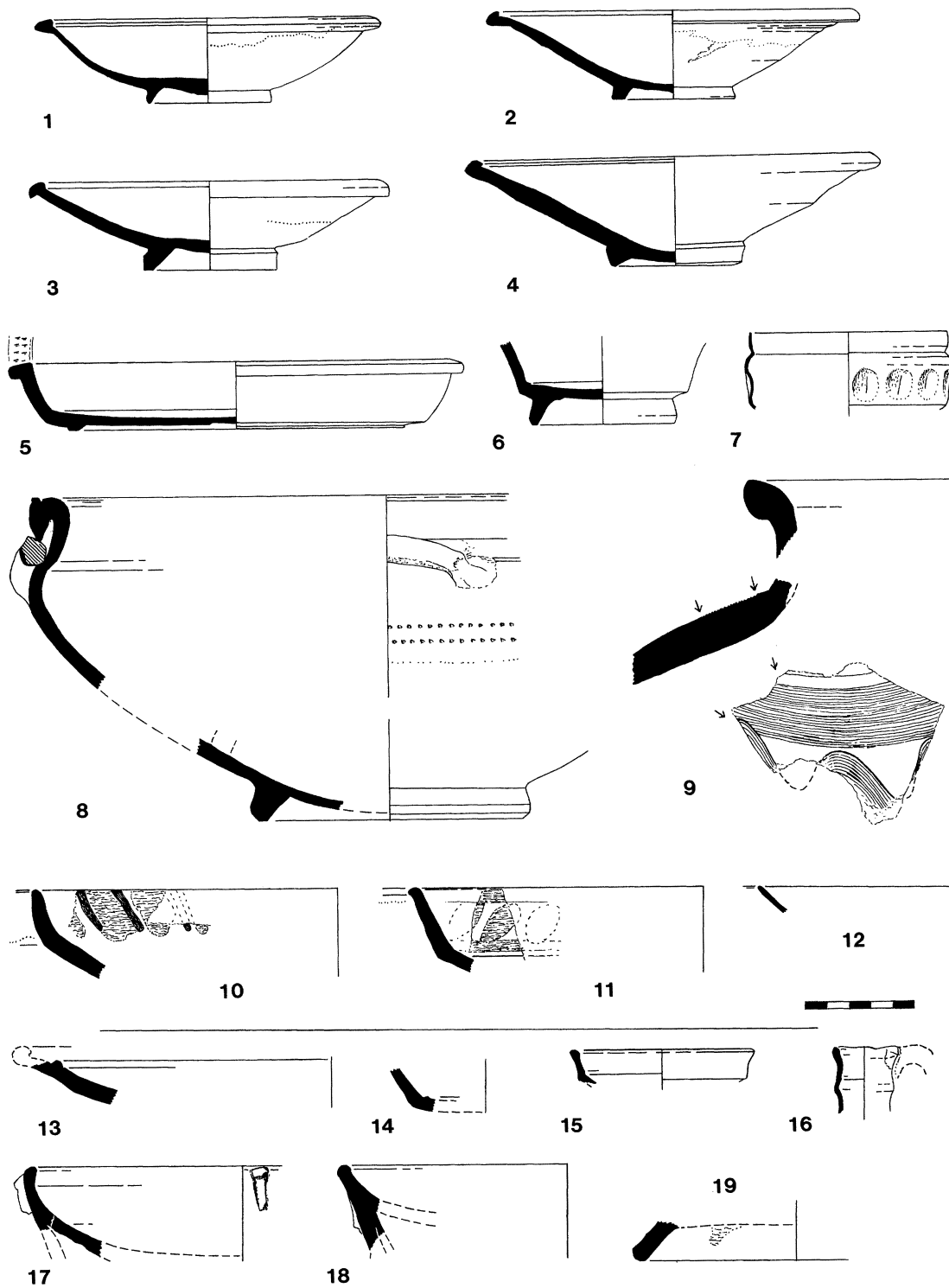
The tower is of the same construction as the remainder of the outer wall. There is no indication that it was ever rebuilt. Thus the results of this sounding were similar to those of the soundings around the northeast tower of the inner castle. The conclusion must be that the castle is a homogeneous structure and was not built before the late twelfth century.

SUMMARY AND CONCLUSIONS

Certain aspects of the architecture and chronology of Saranda Kolones are now seen with greater clarity as a result of the 1981–83 campaigns.

In the north and east sectors of the ditch, the counterscarp wall has been exposed and the level of the ditch floor investigated. The remains of the bridge across the east ditch were discovered. Fortunately enough remained to permit a full understanding of the bridge's support system. Within the castle more of its architecture has been clarified. Three of the most interesting and best preserved rooms were excavated. The floor of the northeast tower was found intact, and the use of ancient columns in the tower's construction was clarified. The monumental stoking chamber was found in an excellent state of preservation. The millroom provided what may be the earliest evidence for the sugar industry on Cyprus. The amount of pottery found there, including fine examples of Zeuxippus Ware, was almost overwhelming for those whose task it was to record it. All of these objects are closely dated to the years immediately preceding 1222, and for that reason alone become important for archaeologists working on medieval sites elsewhere in the Levant.

Greater chronological clarity has been a main result of these three latest campaigns. At one end of the spectrum, we have for the first time secured



H. Pottery from Various Periods (J. W. Hayes): Hellenistic (1–4), Roman (5–8), Dark Age (9, 13–19), Byzantine, Twelfth Century (10–11), Islamic, Twelfth Century (12)



1. Cyprus, Paphos, Saranda Kolones, General View, Tower A in Foreground, looking Southeast



2. North Outer Wall and Northeast Tower, looking South



3. Northeast Tower, with Interior Partition Wall, looking South



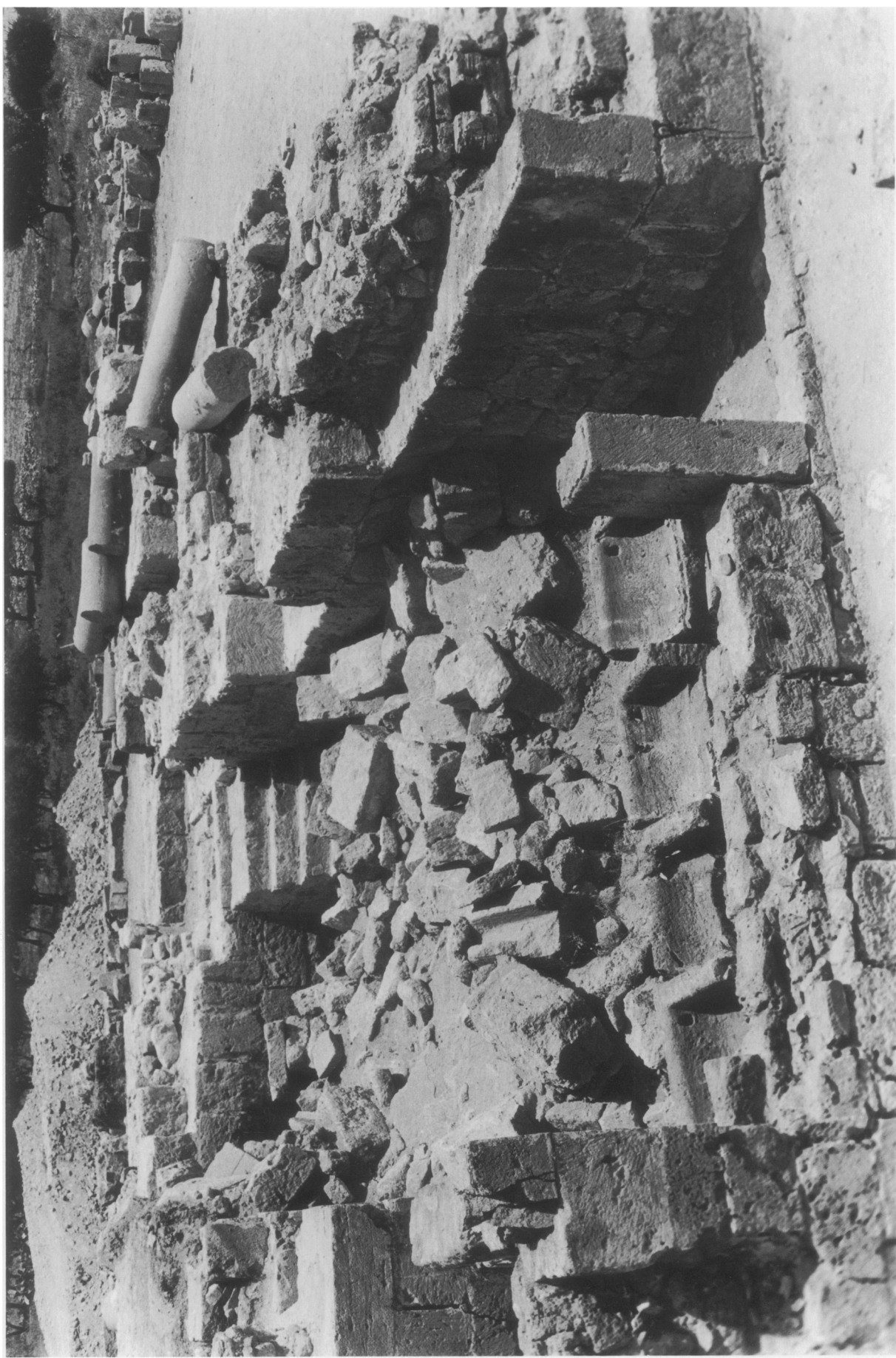
4. General View, Beginning of 1981 Season (looking Southeast)



5. Robber's Ramp across Northeast Tower (at Northeast Corner), looking Southwest



6. Removing Earthquake Debris in Millroom in 1981, looking North



7. Millroom at End of 1981 Campaign, looking Northeast



8. South Mill in Millroom, looking West



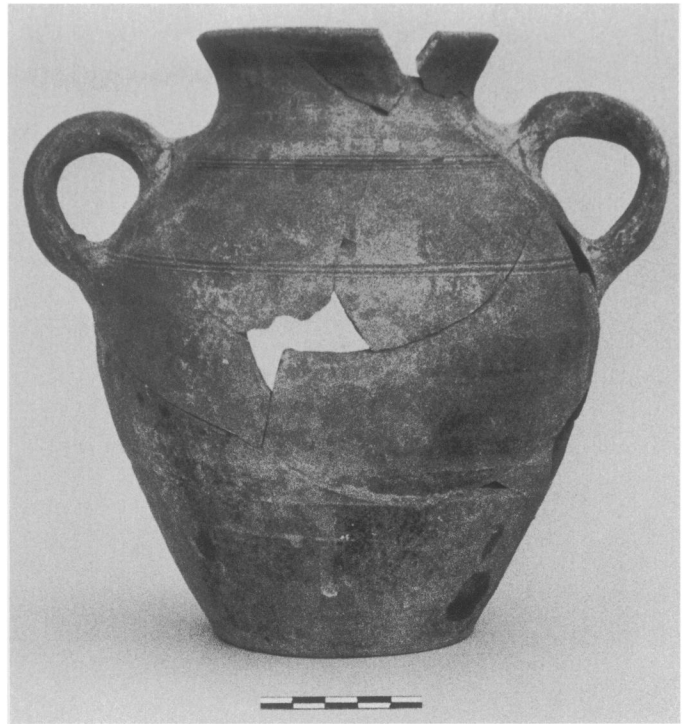
9. Millroom in 1983 (Derelict Mill in Foreground), looking Southeast



10. Millroom in 1983, looking Northwest



11. Glass Flask (FC. 3162 G)



12. Coarseware Pot (FC. 3322) from Millroom



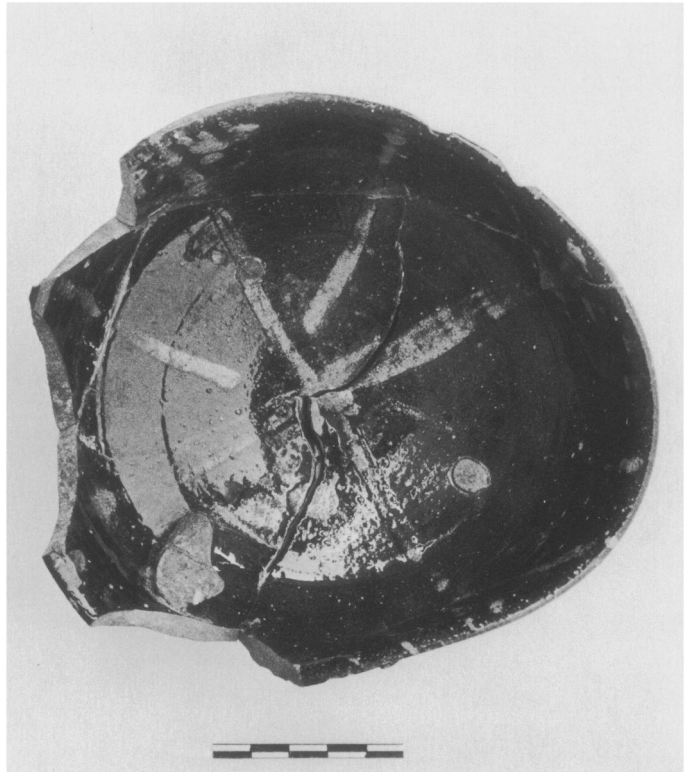
13. Collecting Pot for Molasses (FC. 3318) from Millroom



14. Storage Vessel (FC. 3651) from Millroom



15. Imported Slip-painted Plate (FC. 3597)



16. Deformed Local Slip-painted Bowl (FC. 3827)

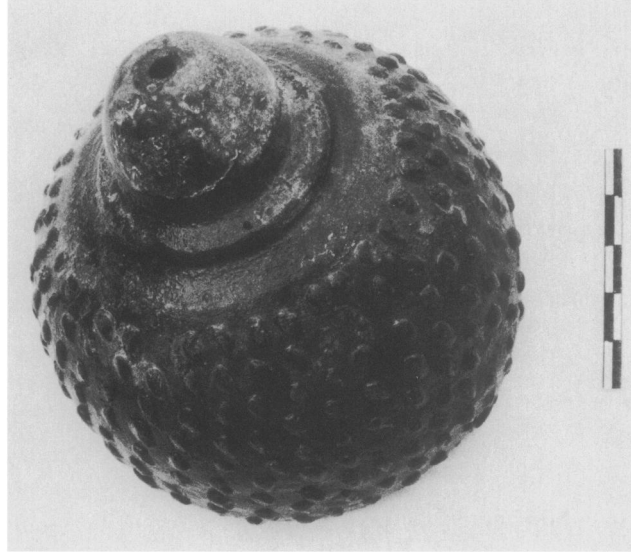


17. Zeuxippus Ware bowl (FC. 3734/11)

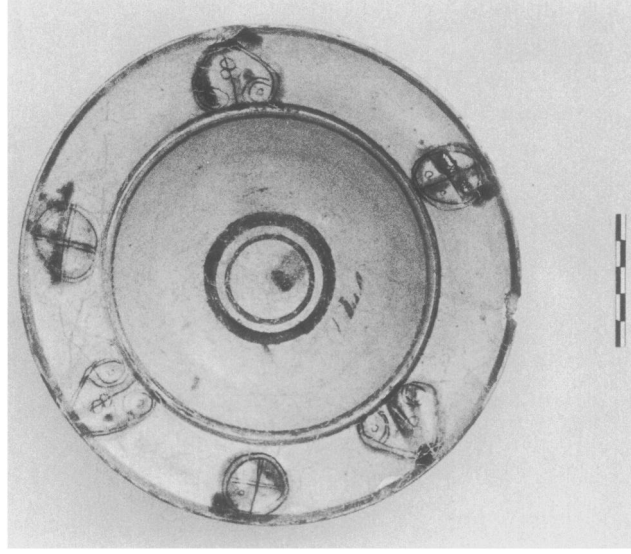


18. Slip-painted Jar (FC. 3734/1)

From Millroom. Early Thirteenth Century



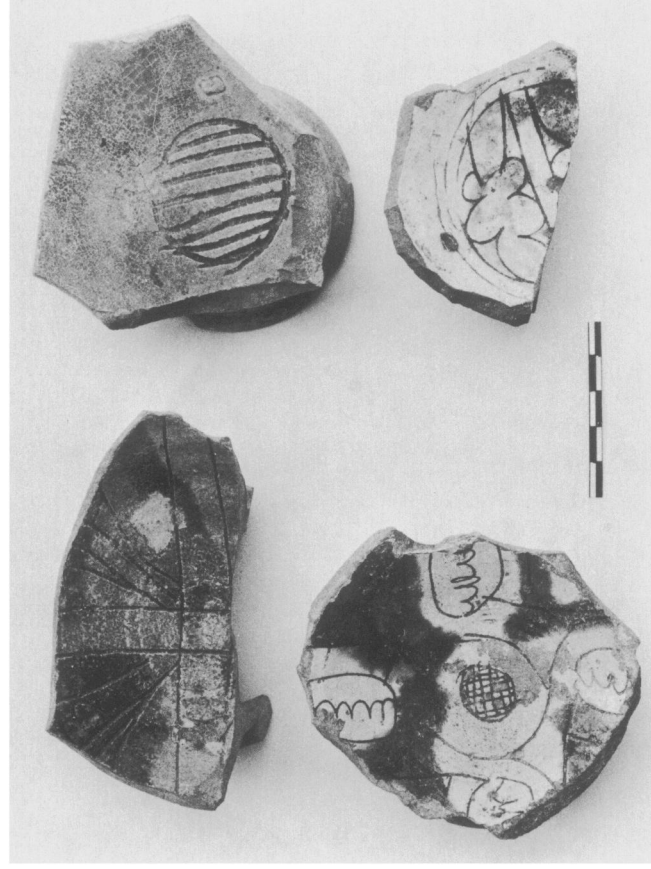
19. "Grenade" (FC. 3734 0/3) from Millroom,
Early Thirteenth Century



20. Zeuxippus Ware Plate (FC. 3615)
from North Outer Ward, Early Thirteenth Century



21. Green-painted Bowl (FC. 3616)
from North Outer Ward,
Early Thirteenth Century



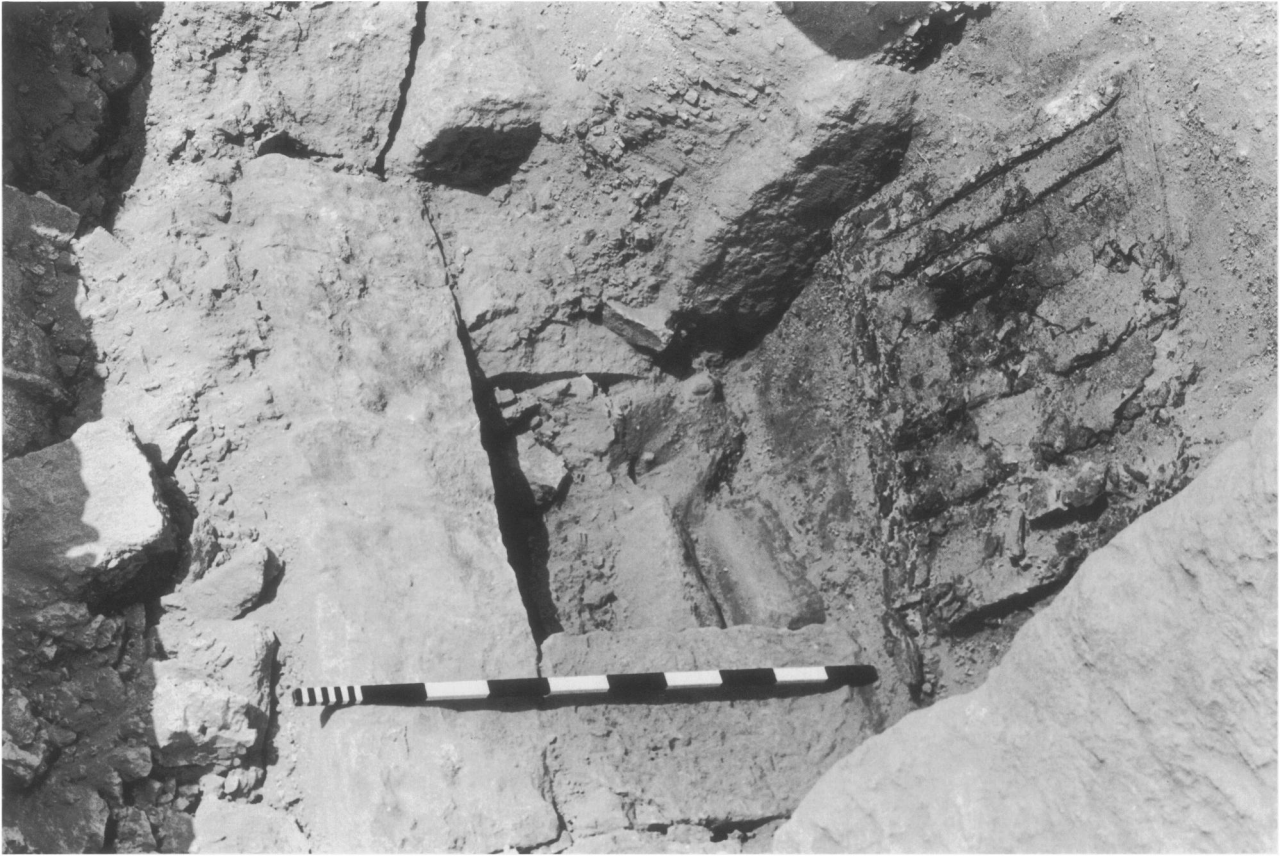
22. Cypriot Glazed Bowl Fragments,
Thirteenth Century (after 1222)



23. Stoking Chamber (right) and Furnace (left), looking North



24. Stoking Chamber, looking Northwest



25. Iron Door (FC. 3846) in Stoking Chamber, looking Northwest



26. Bridge Piers projecting from Counterscarp Wall, looking North



27. Area of Bridge in East Ditch, looking Southeast toward Counterscarp Wall



28. Sounding in North Ditch showing Exposed Earthquake Debris, looking South



29. Interior of Tower A, showing Exposed Mortared Substructure, looking North



30. North Ditch, West End



31. North Ditch, looking East

from undisturbed remains evidence of the Hellenistic and Roman occupation of the site, which followed yet earlier quarrying. At the other end of the spectrum, we have now more evidence of the processes of salvage and demolition that occurred after 1222, and some indication of encroachment by the city to whose reconstruction the ruin of the castle had contributed.

However, it is the chief chronological problem, namely, the origin of the fortress, that has been most clarified. At the beginning of the 1981 season the evidence left open the possibility that the castle was of Byzantine origin, but renovated by the Crusaders. The ninth-century material from construction contexts had seemed of prime importance. There was also substantial evidence that the fortress had never been completed as planned, a circumstance that would fit the brief Byzantine reoccupation of Cyprus under Basil I. Moreover, certain additions and alterations looked like the work of secondary occupants, following a period of abandonment. Such was the buttress tower added to the castle's south wall, with copious amounts of Crusader pottery in its construction fill. It could, then, be asked: was not this the *castellum Baffes* that the Byzantine commander surrendered to the forces of Richard the Lionheart in 1191?

The problem with this proposition was that the evidence for a Byzantine presence in the twelfth century was meager. Indeed, the only substantial Byzantine remains found underlying the castle were below the southeast tower, and those evidently belonged to a glass factory. In view of this, one purpose of the 1981–83 campaigns was to search for

pre-Crusader floors and to investigate more intensively the castle's foundation trenches. In 1981 alone twenty stratigraphic soundings were made, more than previously undertaken at the site. From 1981 through 1983 the total was thirty-five, and the results have justified the effort. The soundings around the northeast tower suggested a construction date not before the late twelfth century, and this result was repeated in the crucial investigation of the substructure of Tower A in the outer circuit. If similar evidence from other points were needed, it could be cited for the apsidal inner gate tower, where a small mid-twelfth century or later sherd was found in construction fill about half a meter below the castle floor,⁴⁹ and for the west outer wall, north of Tower C, where a late twelfth-century scrap of gouge-decorated glazed ware was found at an even greater depth below the floor.⁵⁰ The conclusion that the fortress is of Crusader origin is inescapable.

In the final analysis, there may be some aspects of the fortress that are Byzantine. After all, the Crusaders built on a Byzantine site, most probably with assistance from the local populace. However, on the basis of evidence from the 1981–83 campaigns it can now be asserted that Saranda Kolones was a product of the late twelfth century, at the earliest, and was thus Crusader from the outset.

⁴⁹ Inv. no. FC. 3201/2, with slip-painted decoration under a yellow glaze, from sounding 1981–XI. Coin FC. 3013, an early Lusignan denier from sounding 1981–I, was found in the floor (FC. 3009) directly over this tower's foundation trench. The coin also provides a terminus post quem for the completion of this part of the castle.

⁵⁰ Inv. no. FC. 3557/4, from sounding 1982–VII.